

As a below named inventor, I declare that I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

27 HUMAN SECRETED PROTEINS

the specification of which was filed on **September 13, 2000**, as Application Serial No. **09/661,453**.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

rior Foreign Application	(0)		Priority Cl	laimed No
(Number)	(Country)	(Day/Month/Year Filed)	-	
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nereby claim the benefit oplication(s) listed below 60/125,055		§ 119(e) of any United State	s provisional	

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(b) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/US00/06783	16 March 2000	Pending
(Application Serial No.)	(Filing Date)	(Status: patented, pending, abandoned)

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Joseph Kenny (Reg. No. 43,710), Jonathan

L. Klein (Reg. No. 41,119), Michele Wales (Reg. No. 43,975), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc. 9410 Key West Avenue, Rockville, Maryland, 20878.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint in	nventor:	Steven M. Ruben		
Inventor's signature:	Man	1 Ml	Date:	1200
Residence: 18528 H	eritage Hills Drive	e, Olney, MD 20832	Citizenship:	US
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Full name of additional j	oint inventor:	Jian Ni		
Inventor's signature:	•	176	Date:	3/0)
Residence: 5502 Mar	norfield Road, Roa	ckville, MD 20853	Citizenship:	ĆN
Post Office Address:	same as above		- , •	-
Full name of additional		D. C. L. AND		
Full name of additional j	oint inventor:	Reinhard Ebner		
Inventor's signature:			Date:	
Residence: 9906 Shelbur	ne Terrace, #316,	Gaithersburg, MD 20878	Citizenship:	DE
Post Office Address:	same as above		· -	
Full name of additional je	oint inventor:	Craig A. Rosen		
	,	Craig A. Rosen		
Inventor's signature:	Lo	12	Date: //2	9/11
Residence: 22400 Ro	lling Hills Lane, I	Laytonsville, MD 20882	Citizenship:	US
Post Office Address:	same as above			
Full name of additional jo	aint inventor	Yanggu Shi	·	
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Inventor's signature:	me	mm Mm	Date:	26/2
Residence: 437 West Side			_ Citizenship:	CN
Post Office Address:	same as above			

Full name of additional joint inventor:	Charles E. Birse		
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Inventor's signature:	χ .	Date:	
Residence: 13822 Saddleview Drive, North I	otomac, MD 20878	Citizenship:	GB W
Post Office Address: same as above			
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Full name of additional joint inventor:	Kimberly A. Florence	e	
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Inventor's signature:	Deceno	Date:	<u> 16/0)</u>
Residence: 12805 Atlantic Avenue, Rockville	, MD 20851	_ Citizenskip:	<u> </u>
Post Office Address: same as above			<u> </u>
Full name of additional joint inventor:	George Komatsoulis		
Inventor's signature:	Konobouli	D-4 26	i Torost
	<u> </u>	Date: 26 Citizenship:	fin erel
Residence: 9518 Garwood Street, Silver S Post Office Address: same as above	Spring, MD 20901	Citizenship:	
Fost Office Address. Same as above			
Full name of additional joint inventor:	David W. LaFleur		
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Inventor's signature:	WY	Date: l	26 01
Residence: 3142 Quesada Street, N.W., Was	hington, DC 20015	Citizenship:	US
Post Office Address: same as above	١,		
Full name of additional joint inventor:	Paul A. Moore		
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Inventor's signature: fam A M	700C	Date: $1/3$	20/01
Residence: 19005 Leatherbark Drive, Gern		Citizenship:	
Post Office Address: same as above	· · · · · · · · · · · · · · · · · · ·		
			
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Full name of additional joint inventor:	Henrik Olsen		
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Inventor's signature:	<u> </u>	Date:	
Residence: 182 Kendrick Place, #24, Gait	hersburg, MD 208/8	Citizenship:	<u>DK</u>
Post Office Address: same as above			· · · · · ·
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Full name of additional joint inventor:	Paul Young		
Inventor's signature		Date	
Inventor's signature: Residence: 122 Beckwith Street, Gaithers	NEW MD 20070	Date:	TIC
Residence: 122 Beckwith Street, Gaithers Post Office Address: same as above	July, IVID 200/8	Citizenship:	<u>US</u>
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DECLARATION FOR PATENT APPLICATION

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Prior Foreign Applicati	on(s):		Priority Cl Yes	laimed No
(Number)	(Country)	(Day/Month/Year Filed)		
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60/125,055 (Application Serial No	o.) 18 March	······································		

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Inventor's signature:		Date:	
Residence: 18528 Heritage Hills Drive, C	Olney, MD 20832	Citizenship;	US
Post Office Address: same as above		γ,	` <u></u>
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Full name of additional joint inventor:	Jian Ni		
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Residence: 5502 Manorfield Road, Rockv	ille, MD 20853	Citizenship:	CN
Post Office Address: same as above			
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Full name of additional joint inventor:	Reinhard Ebner	·	
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Residence: 9906 Shelburne Terrace, #316, Ga	thershurg MD 20878		DE
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Residence: 22400 Rolling Hills Lane, Layt Post Office Address: same as above	onsville, MD 20882	Citizenship:	US
same as above			
Full name of additional joint inventor:	Yanggu Shi		
nventor's signature:		Data	
Residence: 437 West Side Drive, Apt. 102, Ga	ithershurg MD 20070	Date:	CN
Post Office Address: same as above	inicisouig, IVID 208/8	Citizenship:	<u>CN</u>
Same as above			

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Inventor's signature:	. MD 20070	Date:	
Residence: 13822 Saddleview Drive, North P	otomac, MD 20878	Citizenship:	<u>GB</u>
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Full name of additional joint inventor:	Kimberly A. Florenc	e	
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Post Office Address: same as above	prints, 1,12 20,01	Citizunomp.	
			
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Inventor's signature:	DC 20015	Date:	TIC
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Full name of additional joint inventor:	Paul A. Moore		
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Residence: 19005 Leatherbark Drive, Gern	nantown, MD 20874	_ Citizenship:	<u>UK</u>
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- Lui hame of additional Joint inventor.	TICHIN OLDER		
Inventor's signature:		Date:	
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Invested a important		Date: 1/22	61
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Prior Foreign Application(s):

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Full name of additional joint inventor	Reinhard Ebner		
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Post Office Address: same as above			

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Residence: 13822 Saddleview Drive, North Potomac, MD 20878 Gitizenship: GB Post Office Address: same as above	•	•	_	
Post Office Address: same as above Full name of additional joint inventor: Kimberly A. Florence Inventor's signature: Date: Residence: 12805 Atlantic Avenue, Rockville, MD 20851 Citizenship: US Post Office Address: same as above Full name of additional joint inventor: George Komatsoulis Inventor's signature: Date: Residence: 9518 Garwood Street, Silver Spring, MD 20901 Citizenship: US Post Office Address: same as above Full name of additional joint inventor: David W. LaFleur Inventor's signature: Residence: 3142 Quesada Street, N.W., Washington, DC 20015 Citizenship: US Post Office Address: same as above Full name of additional joint inventor: Paul A. Moore Inventor's signature: Residence: 19005 Leatherbark Drive, Germantown, MD 20874 Citizenship: UK Post Office Address: same as above Full name of additional joint inventor: Henrik Olsen Inventor's signature: Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878 Citizenship: DK Post Office Address: same as above Full name of additional joint inventor: Paul Young Full name of additional joint inventor: Paul Young		D		
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Inventor's signature: Date: Residence: 3142 Quesada Street, N.W., Washington, DC 20015 Citizenship: US Post Office Address: same as above Full name of additional joint inventor: Paul A. Moore Inventor's signature: Date: Residence: 19005 Leatherbark Drive, Germantown, MD 20874 Citizenship: UK Post Office Address: same as above Full name of additional joint inventor: Henrik Olsen Inventor's signature: Date: Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878 Citizenship: DK Post Office Address: same as above Full name of additional joint inventor: Paul Young	Post Office Address: same as above	,		
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Full name of additional joint inventor: Paul A. Moore		simigion, DC 20015	_ Chizensinp.	
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Full name of additional joint inventor: Henrik Olsen		mantown, MD 208/4	Citizenship:	UK
Inventor's signature: Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878 Citizenship: DK Post Office Address: same as above Full name of additional joint inventor: Paul Young	Fost Office Address: Same as above			
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Post Office Address: same as above Full name of additional joint inventor: Paul Young	Inventor's signature:		Date:	
Full name of additional joint inventor: Paul Young	Residence: 182 Kendrick Place, #24, Gai	thersburg, MD 20878	Citizenship:	DK
	Post Office Address: same as above			
	•			
	Trill name of additional laint inventors	David Warran		
Inventor's signature: Date:	run name of additional joint inventor:	raul roung		
Luio.	Inventor's signature:		· Date:	
		burg, MD 20878		US

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Ebner, Rosen, Shi, Birse, Florence, Komatsoulis, LaFleur, Moore, Olsen and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention(s) known as 27 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 1/26/01, 1/23/01, 1/29/01, 1/26/01, 1/26/01, 1/26/01, 1/26/01, 1/26/01 (also known as United States Application No. 09/661,453, filed September 13, 2000), in any and all applications thereon, in any and all Patent(s) therefor, and
- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof; and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature:	Herk	Date:	1/26/01
•	Steven M. Ruben		. ·
Inventor's Signature:	75	Date:	1/22/01
inventor's Signature	Jian Ni		
Inventor's Signature:_		Date:	
	Reinhard Ebner		
Inventor's Signature:	lengton	Date:	1/29/01
•	Zraig A. Rosen		6
Inventor's Signature:	mem selvi	Date:	1/26/00
	Yanggu Shi		1
Inventor's Signature:	Judge 5k	Date:	7 20 M
	Charles E. Birse	•	
Inventor's Signature:	July S Florence	Date: _	1/20/01
	Kimberly Florence		
Inventor's Signature:	George J. Komarkanl	Date: _	1/26/01
	George Komatsoulis		
Inventor's Signature:	MUMAGO	Date: _	126 01
	David W. LaFleur		
Inventor's Signature:	Pau A Mook	Date:	1/26/01
	Paul A. Moore		•
Inventor's Signature:	Henr Olan	Date: _	1/26/01
	Henrik Olsen		•
Inventor's Signature:	· · · · · · · · · · · · · · · · · · ·	Date: _	
	Paul Voung		

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Ebner, Rosen, Shi, Birse, Florence, Komatsoulis, LaFleur, Moore, Olsen and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

(a) in and to the invention(s) known as 27 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 01/19/01

(also known as United States Application No. <u>09/661.453</u>, filed <u>September 13, 2000</u>), in any and all applications thereon, in any and all Patent(s) therefor, and

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof; and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature:		Date:	_
	Steven M. Ruben		
Inventor's Signature:		Date:	
	Jian Ni	Date: 1/19/C	
Inventor's Signature:	Reinhard Ebner	Date: _// / J / C	
Inventor's Signature:		Date:	
	Craig A. Rosen		
Inventor's Signature:		Date:	
t.	Yanggu Shi		
Inventor's Signature:		Date:	 _
	Charles E. Birse		
Inventor's Signature:	771 1 779	Date:	
	Kimberly Florence	· ·	
Inventor's Signature:	Caran Variation lie	Date:	
	George Komatsoulis		•
Inventor's Signature:	David W. LaFleur	Date:	
	David W. Larieui		•
Inventor's Signature:	Paul A. Moore	Date:	
Inventor's Signature:	Henrik Olsen	Date:	
		_	
Inventor's Signature:	Paul Young	Date:	

PZ038P1

ASSIGNMENT

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	United States of America has (have) been executed by the undersigned on
	01/22/01
	(also known as United States Application No. 09/661,453, filed September 13, 2000), in any and all
	applications thereon, in any and all Patent(s) therefor, and

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
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	Steven M. Ruben	
Inventor's Signature:_		Date:
	Jian Ni	
Inventor's Signature:_	^ ^	Date:
	Reinhard Ebner	
Inventor's Signature:_		Date:
	Craig A. Rosen	
Inventor's Signature:		Date:
	Yanggu Shi	. •
Inventor's Signature:_		Date:
	Charles E. Birse	
Inventor's Signature:		Date:
	Kimberly Florence	
Inventor's Signature:	<u> </u>	Date:
	George Komatsoulis	
Inventor's Signature:_		Date:
	David W. LaFleur	
Inventor's Signature:_		Date:
	Paul A. Moore	· · · · · · · · · · · · · · · · · · ·
Inventor's Signature:_	Henrik Olsen	Date:
•	1/1/2	1/2 61
Inventor's Signature:_	/Paul/Young	Date: 1/22/01
•	At anil t onling	$\mathcal{F} = \mathcal{F} = \mathcal{F}$